

In the Claims

1-25 (canceled).

26 (currently amended). A labeled angiogenesis inhibiting molecule comprising a label and an angiogenesis inhibiting molecule selected from~~A composition of matter comprising:~~

~~(a) a label and an angiogenesis inhibiting molecule comprising:~~

(~~ia~~) the antibody H33, produced by hybridoma 13H33 as deposited with the Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH under the deposit accession number DSM ACC2622, and fragments or derivatives thereof that have the same specificity as H33;

(~~bii~~) a humanized antibody based on H33 and having the same specificity as antibody H33;

(~~biii~~) a chimeric antibody based on H33 and having the same specificity as antibody H33;

(~~div~~) a fragment of H33 selected from:

(~~AI~~) a Fab fragment;

(~~iiB~~) a Fv fragment;

(~~iiiC~~) a single domain antigen binding fragment;

(~~ivD~~) a scFv, a dimer of a scFv, a trimer of a scFv and a larger aggregate of a scFv; or

(~~EV~~) V_{III};

(~~ev~~) a recombinant antibody having the binding specificity of H33; or

(~~fi~~) a human monoclonal antibody having the binding specificity of H33;

~~(b) an isolated polynucleotide comprising a sequence encoding an angiogenesis inhibiting molecule comprising:~~

~~(i) the antibody H33, produced by hybridoma 13H33 as deposited with the Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH under~~

- ~~the deposit accession number DSM ACC2622, and fragments or derivatives thereof that have the same specificity as H33;~~
- ~~(ii) — a humanized antibody based on H33 and having the same specificity as antibody H33;~~
 - ~~(iii) — a chimeric antibody based on H33 and having the same specificity as antibody H33;~~
 - ~~(iv) — a fragment of H33 selected from:~~
 - ~~—— (A) — a Fab fragment;~~
 - ~~—— (B) — a Fv fragment;~~
 - ~~—— (C) — a single domain antigen binding fragment;~~
 - ~~—— (D) — a scFv, a dimer of a scFv, a trimer of a scFv and a larger aggregate of a scFv; or~~
 - ~~—— (E) — V_{HH} ;~~
 - ~~(v) — a recombinant antibody having the specificity of H33; or~~
 - ~~(vi) — a human monoclonal antibody having the specificity of H33;~~
- ~~(c) — an expression cassette comprising a polynucleotide linked to appropriate control sequences allowing the regulation of its transcription and translation in a chosen host cell, said polynucleotide comprising a sequence encoding an angiogenesis inhibiting molecule comprising:~~
- ~~(i) — the antibody H33, produced by hybridoma 13H33 as deposited with the Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH under the deposit accession number DSM ACC2622, and fragments or derivatives thereof that have the same specificity as H33;~~
 - ~~(ii) — a humanized antibody based on H33 and having the same specificity as antibody H33;~~
 - ~~(iii) — a chimeric antibody based on H33 and having the same specificity as antibody H33;~~
 - ~~(iv) — a fragment of H33 selected from:~~
 - ~~—— (A) — a Fab fragment;~~

- ~~—— (B) — a Fv fragment;~~
- ~~—— (C) — a single domain antigen binding fragment;~~
- ~~—— (D) — a scFv, a dimer of a scFv, a trimer of a scFv and a larger aggregate of a scFv; or~~
- ~~—— (E) — V_HH;~~
- ~~(v) — a recombinant antibody having the specificity of H33; or~~
- ~~(vi) — a human monoclonal antibody having the specificity of H33;~~
- ~~(d) — a recombinant vector comprising an expression cassette, said expression cassette comprising a polynucleotide linked to appropriate control sequences allowing the regulation of its transcription and translation in a chosen host cell, said polynucleotide comprising a sequence encoding an angiogenesis inhibiting molecule comprising:~~
 - ~~(i) — the antibody H33, produced by hybridoma 13H33 as deposited with the Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH under the deposit accession number DSM ACC2622, and fragments or derivatives thereof that have the same specificity as H33;~~
 - ~~(ii) — a humanized antibody based on H33 and having the same specificity as antibody H33;~~
 - ~~(iii) — a chimeric antibody based on H33 and having the same specificity as antibody H33;~~
 - ~~(iv) — a fragment of H33 selected from:~~
 - ~~—— (A) — a Fab fragment;~~
 - ~~—— (B) — a Fv fragment;~~
 - ~~—— (C) — a single domain antigen binding fragment;~~
 - ~~—— (D) — a scFv, a dimer of a scFv, a trimer of a scFv and a larger aggregate of a scFv; or~~
 - ~~—— (E) — V_HH;~~
 - ~~(v) — a recombinant antibody having the specificity of H33; or~~
 - ~~(vi) — a human monoclonal antibody having the specificity of H33; or~~

- (e) ~~a host cell comprising a recombinant vector comprising an expression cassette, said expression cassette comprising a polynucleotide linked to appropriate control sequences allowing the regulation of its transcription and translation in a chosen host cell, said polynucleotide comprising a sequence encoding an angiogenesis inhibiting molecule comprising:~~
- ~~(i) the antibody H33, produced by hybridoma 13H33 as deposited with the Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH under the deposit accession number DSM ACC2622, and fragments or derivatives thereof that have the same specificity as H33;~~
 - ~~(ii) a humanized antibody based on H33 and having the same specificity as antibody H33;~~
 - ~~(iii) a chimeric antibody based on H33 and having the same specificity as antibody H33;~~
 - ~~(iv) a fragment of H33 selected from:~~
 - ~~—— (A) a Fab fragment;~~
 - ~~—— (B) a Fv fragment;~~
 - ~~—— (C) a single domain antigen binding fragment;~~
 - ~~—— (D) a scFv, a dimer of a scFv, a trimer of a scFv and a larger aggregate of a scFv; or~~
 - ~~—— (E) V_{HH} ;~~
 - ~~(v) a recombinant antibody having the specificity of H33; or~~
 - ~~(vi) a human monoclonal antibody having the specificity of H33.~~

27 (currently amended). The composition of matter according to claim 26, wherein said angiogenesis inhibiting molecule further comprises one or two non-immunoglobulin moieties selected from cytokines, interleukins, hematopoietic factors, lymphokines, interferons, or chemokines.

28 (canceled).

29 (previously presented). The composition of matter according to claim 26, wherein said angiogenesis inhibiting molecule:

- a) blocks angiogenesis *in vitro* and *in vivo*;
- b) prevents tumor growth *in vivo*;
- c) reduces the recruitment of macrophages into tumors; and
- d) blocks the interaction of JAM-C with JAM-B.

30-41 (canceled).

42 (previously presented). A method of binding an angiogenesis inhibiting molecule to JAM-C comprising contacting a sample, under conditions that allow for the binding of said angiogenesis inhibiting molecule to JAM-C, with a composition comprising:

- (a) an angiogenesis inhibiting molecule comprising:
 - (i) the antibody H33, produced by hybridoma 13H33 as deposited with the Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH under the deposit accession number DSM ACC2622, and fragments or derivatives thereof that have the same specificity as H33;
 - (ii) a humanized antibody based on H33 and having the same specificity as antibody H33;
 - (iii) a chimeric antibody based on H33 and having the same specificity as antibody H33;
 - (iv) a fragment of H33 selected from:
 - (A) a Fab fragment;
 - (B) a Fv fragment;
 - (C) a single domain antigen binding fragment;
 - (D) a scFv, a dimer of a scFv, a trimer of a scFv and a larger aggregate of a scFv; or
 - (E) V_{HH} ;
 - (v) a recombinant antibody having the specificity of H33; or

- (vi) a human monoclonal antibody having the specificity of H33; and
- (b) a suitable excipient, carrier or diluent.

43 (previously presented). The method according to claim 42, wherein said method further comprises the detection of the binding of JAM-C to said angiogenesis inhibiting molecule.

44 (previously presented). The method according to claim 43, wherein said sample is a tissue sample, a body fluid sample or a cell sample.

45 (previously presented). The method according to claim 43, wherein said method is *ex vivo* or *in vitro*.